1:Redfield E-5 (1926-1927)1930
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423 621 794 able with law, the legal title to these lands is held by an individual, but he holds in trust for the *santo*. His interest in the land is no greater than that of any other member of the *barrio*. The lands are sowed, tended, and harvested in common by the men of the *barrio*, under the direction of the *mayordomo* of the *santo*, and the crop, when sold, goes to the upkeep of the chapel—for candles, curtains for the altars, etc. Most of the lands so communally owned by the *barrios* are *milpas* on which maize is grown. But San Miguel also owns a grove of *chirimoyas*, and San Pedro owns a grove of cedars. (Cedar boughs, now as in pre-Columbian times, are much used in decorating altars and are subject to other religious and magical uses.) In addition, certain of the *barrios*, notably San Miguel, own bulls which are used for *toros*, a sort of rustic bullfight sometimes held on the occasion of the *fiesta* of the *santo*. During the rest of the year the bulls are loaned out to members of the *barrio* for upkeep.[1]

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174 621 The *barrio* is plainly recognizable as the pre-Columbian *calpolli*. From the accounts[2] we have of the social organization of Tenochtitlan (Mexico City) and of Texcoco, it appears that each *pueblo* in the Nahua area was divided into units which bore this name. These units were originally, it has been supposed,[3]

[1] The communal ownership of these bulls is not fully attested. During the year of the writer's stay San Miguel lent its bulls to Los Reyes at the time of the *fiesta* of the latter *barrio;* Los Reyes had none of its own, or too few.

[2] See T. T. Waterman, *Bandelier's Contribution to the Study of Ancient Mexican Social Organization.*

[3] *Ibid.* Spinden, *Ancient Civilizations of Mexico and Central America*, p. 190, contra.

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423 631 628 578 [474] [314] [177] terests of a small clique within that village. The schisms created by this cooperative within the village and the municipio will be treated later in this study.

These facts indicate the strong individualism of the villagers, and the interesting way in which new contacts with the outside and production for the market have disrupted the earlier stability of the municipio. As long as production of charcoal was primarily for household use, there seemed to be no conflict between collective ownership and individual exploitation of the resources. As a matter of fact, the communal lands have been one of the few unifying factors in the life of the municipio and have brought the villagers together to defend their lands in the face of threats from the outside. However, with commercial exploitation of the limited communal resources, competition became intense, and the concept of communal land ownership by the municipio was attacked.

PRIVATE HOLDINGS

423 175 As we have indicated earlier, private landholdings include most of the lands for plow agriculture; that is, most of the level lands. The only other privately owned lands are the house sites in the village, most of which include some ground for a garden and for some corn plantings. The history of private landholdings is not very clear. Certainly we know that private holdings have existed at least since the time of the Conquest. Whether or not it existed in Tepoztlán before the Conquest cannot be determined, but, judging from the data for other parts of Mexico, it is probable that private holdings coexisted with other holdings. Much of the land that is now privately owned, approximately one hundred hectares of the most productive lands of the municipio, once belonged to the church. This land was divided into private holdings after the Revolution of 1857. Most of the landowners now have 423 some document to prove title; but there are still many individuals who work plots of land which have been passed down from family to family without any written proof of ownership.

[55] [183] The ownership of land is one of the basic aspirations of Tepoztecan peasants, and land-ownership is perhaps their most important single criterion of wealth. The value put on land-ownership is reflected, in part, by the fact that farmers, artisans, and merchants invest in land whenever they have the necessary capital and the opportunity. But there is no concentration of land-ownership in the hands of a few. [432] There are several reasons for this. Few people in Tepoztlán will sell tillable land, and when they do they prefer to sell to close relatives. On the whole there is little land turnover. Tepoztecans with sufficient capital to purchase large quantities of [422] land do not do so, because they seek more profitable kinds of investments, gen- [243] erally in cattle. The high cost of labor and the low and uneven yields in plow agriculture make corn production for commercial purposes unprofitable.

DISTRIBUTION OF PRIVATE HOLDINGS

[183] According to our findings, only 36 per cent or 311 of the 853 families in the village own private land. Thus, in a village where the family ideal is to own a plot

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erally speaking, the tools and techniques used in *tlacolol* are still known by their Náhuatl names, whereas in plow culture Spanish names prevail. Still another difference results from the location of the lands involved. (See Fig. 22.) With few exceptions the privately owned land used for plow culture is much closer to the village than the *tlacolol* land. *Tlacololeros* generally rise at 4:00 A.M., travel about two to three hours to reach their fields, and return home a few hours later than plow culture farmers. The building of the road directly through the privately owned lands has made this contrast sharper. It is not uncommon for some Tepoztecan farmers to take the bus to their milpa. *Tlacololeros*, however, always walk or go by burro. (See Fig. 23.)

PLOW CULTURE

The basic tools of production in plow culture are the ax, plow, machete, and iron hoe. Two types of plows are used: the *arado criollo* (wooden plow) and the *arado polco* (steel plow). The wooden plow (Fig. 24) was introduced by the Spaniards shortly after the Conquest; the first steel plow (Fig. 25) came into the village toward the latter part of the nineteenth century after the railroad had been built through the upper portion of the municipio. Before the Revolution of 1910-20 the steel plow was used only by a few families, and, as late as 1926-27, Redfield reported only a few steel plows.[6] However, by the early thirties plows became more widely used, and in 1943 most farmers used steel plows in addition to wooden plows, each being used for different operations. In 1943, approximately 213 families owned their plows. This number represented only 48 per cent of the families in the village who owned land. In other words, 52 per cent of the landowners lacked one of the basic tools for plow culture.

The wooden plows are made locally by several men who specialize in this work, and the cost of the wooden plow is comparatively inexpensive. However, the prices of both the steel and wooden plow have increased in recent years, so that now considerable capital is needed to purchase a steel plow. (See Table 27.)

TABLE 27. Cost of Plows, in Pesos.

Year	Wooden Plow	Steel Plow
1926	3.00	—
1935	5.50	14.00
1940	7.50	18.00
1942	—	30.00
1944	12.00	40.00

The precise date of the introduction of oxen to Tepoztlán is not known, but they have been used in the village since long before the Revolution. (See Fig. 26.) Most

[6] "The ground is prepared with a wooden plow. For new-broken or very strong earth there are a few steel plowshares." Redfield, *Tepoztlán*, p. 122.

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Table 28. Distribution of Ownership of Plows, Oxen, and Land, 1944.

Barrio	Families Owning Plows	Families Owning Oxen	Families Owning Land
San Miguel	48	44	83
Santo Domingo	70	50	61
La Santísima	36	32	62
Santa Cruz (large)	14	14	44
Los Reyes	23	21	30
San Sebastián	8	6	11
Santa Cruz (small)	8	6	10
San Pedro	6	6	10
Tepoztlán	213	179	311

Table 29. Cost of Oxen, Rental of Oxen, and Wages.

Year	Cost of Oxen[a]	Rental of Oxen per Day (With Driver)	Rental of Oxen per Three Months		Wages of *Peón* per Day
			In Corn[b]	In Pesos	
1926–30	60.00	1.50	6	40.00	50
1936	70.00	2.50	8	75.00	1.00
1940	100.00	3.25	8	125.00	1.25
1942	125.00	4.00	7	150.00	1.50
1943	200.00	5.00	7	150.00	1.50–2.00
1944 (April)	400.00	6.00	7	170.00	2.50–3.00
1944 (July)	400.00	7.50–10.00	7	200.00	3.00–3.50

[a] Cost in Guerrero.
[b] By 100 *cuartillos*.

WORK CYCLE AND PRODUCTION TECHNIQUES

The work cycle of plow culture in Tepoztlán is in four stages: preparation of the land, planting, cultivation, and harvest.

Preparation of Land: In discussing the preparation of the land, we must distinguish between breaking new land, or land that has been idle for a number of years, and preparing land that was under cultivation the year before. In the former case the process is referred to as the *barbecho* (breaking of new land); in the latter as *los tres arados* (the three plowings). The system of plowing used in each case differs considerably. Some Tepoztecans begin their first *barbecho* in the dry or slack season, generally in March. However, at this time the earth is parched and hard, and plowing is difficult and slow. For this reason, farmers prefer to break new land during the rainy season, generally in August, in preparation for the following year. If the weeds are tall and strong they are cut with a machete, piled up to dry, and are burned.[a] It takes a man about three days to clear a heavily

[a] The most stubborn weeds are known as *acuate's hino*. These have deep roots, and if the field is heavily weeded it is necessary to plow in January and again in March. The older men say that this weed came in after the Revolution.

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land and *ejido*. Most of the families who either owned private land or held *ejido* or both and who also worked *tlacolol* had turned to *tlacolol* because their holdings were too small to support their families. But there is a trend among even the better-to-do families to turn back to *tlacolol;* for example, twelve of the twenty families who owned private land, held an *ejido* grant, and worked *tlacolol*, were among the large landowners.

SIZE OF CLEARINGS

Most *tlacolol* clearings are small, averaging between eight and twelve *cuartillos* of seed. The largest *tlacolol* operator in the village plants only thirty-five *cuartillos*. As we shall see, the great amount of labor necessary for clearing *tlacolol* land is the most important limiting factor in the size of clearings used. A related factor, however, is the growing shortage of land which has sufficiently grown back into forest after earlier clearings. Furthermore, *tlacolol* is definitely viewed as subsistence agriculture, and any man who cleared inordinately large areas, even if he could, would incur the wrath of the other villagers.

TOOLS OF PRODUCTION

Plow and oxen are ruled out in *tlacolol* because of the nature of the terrain. In *texcal* the large volcanic rocks lie around helter skelter, so that it is difficult for a man even to walk. Similarly the steep slopes of the *cerros*, and the lime outcroppings make the plow and oxen impractical. In both types of *tlacolol*, the tools used are the *coa, tlalache, cuxala, azadón*, and machete. (See Fig. 29.) They are homemade except for the iron tips in the hoe and machete, which are bought. Thus, in contrast to farmers in plow culture, most *tlacololeros* own their own tools. The cost of the *tlalache* and the *coa* are shown in Table 35.

TABLE 35. Cost of *Tlalache* and *Coa*, Tools Used in *Tlacolol*.

Year	Cost in Pesos	
	Tlalache	*Coa*
1926	1.50	1.25
1935	2.25	1.75
1940	3.00	2.25
1944	5.50	3.25

WORK CYCLE AND PRODUCTION TECHNIQUES

Preparation of Land: Work in *tlacolol* begins in January. The trees are cut with an ax, and the bush is cleared with a machete, extremely difficult and time-consuming work. It takes approximately 40 to 50 days for a man to clear enough land for the planting of 12 *cuartillos* of corn. The trees and brush dry out and are burned in April, and the ashes are left to "fertilize" the soil. Burning is generally done in a single day with two or three men working together. If the materials are not all burned, the group will return and work another day. Enclosures of rocks

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that cattle stealing increases markedly before important fiestas, particularly before the Carnaval in February, the fiesta of Ixcatepec in April, the celebration of the national holidays in August, and All Saints' Day on November first. Cattle thieves are shot on sight, and each year a few are killed.

It is estimated that the families who own considerable cattle spend approximately 140 days during the year in caring for them. A rough estimate of the distribution of the time, based on interviews with a few cattle owners, follows:

Month	*Days Spent Guarding Cattle*
January	8
February	8
March	8
April	12
May	12
June	4
July	4
August	15
September	30
October	31
November	4
December	4
Total	140

Although cattle and other livestock are an important supplementary source of income, animal ownership is on a small scale and is limited to a relatively small proportion of families. Table 39 presents the distribution of cattle, oxen, horses, mules, donkeys, and hogs among families in each of the barrios.

It can be seen that only 179, or 21 per cent, of the families own cattle. Well over 50 per cent of these families own between one and three cows; about 40 per cent own four to ten cows. The largest herd in 1943 was a little over seventy head, although estimates obtained in 1947 showed much larger herds, with the two wealthiest cattlemen having about 150 head each. There are only about a dozen men in the village who might be said to raise cattle on a large scale, and only six of these have herds of over fifty.

The ownership of oxen is limited to 177, or 20 per cent of the families. Of these, only two families own more than one team of oxen. The low percentage of families owning a team of oxen indicates the limited extent to which Tepoztecan farmers own one of the basic means of production.

The distribution of horses, donkeys, and mules owned by families in the proportions of 28 per cent, 11 per cent, and 14 per cent, respectively, reflects the local evaluation of work animals. Mules are more popular than donkeys, and horses are valued more highly than either. Riding horses as against work horses are considered

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[p. 160]

TABLE 39. Distribution of Livestock Among Families by Barrio in 1943.

Barrio	Total Families	Families	Cattle	Families	Oxen	Families	Horses	Families	Donkeys	Families	Mules	Families	Hogs
San Miguel	214	56	386	43	43	67	64	17	24	31	30	23	51
Santo Domingo	223	48	224	31	31	72	82	20	33	27	36	114	270
La Santísima	185	43	316	32	32	59	75	17	25	42	65	126	305
Santa Cruz (large)	82	11	38	14	14	23	30	11	17	5	5	7	23
Santa Cruz (small)	38	6	47	6	6	10	10	1	1	6	8	10	27
Los Reyes	49	8	24	21	21	20	25	18	23	11	19	38	82
San Sebastián	42	4	6	4	6	13	16	8	11	3	4	16	51
San Pedro	22	3	13	6	6	0	0	0	0	0	0	1	4
Tepoztlán	853	179	1,054	177	179	244	312	92	134	123	174	336	793

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a luxury. The prestige associated with horse ownership goes back to the colonial period when only leading men of the village were allowed to ride a horse.[2]

Ownership of horses, mules, or donkeys is on a small scale; most families have only one animal. The largest number of work animals owned by a single family is six horses and four mules.

Hogs are more widely distributed among the villagers. About forty per cent of the families of Tepoztlán own at least one hog, and many own two or three. The smaller outlay of capital and the lower gains involved in the purchase and sale of hogs limits hog-ownership to the poorer families. It is interesting to note that a very small proportion of the families in the barrio of San Miguel own hogs despite the fact that this barrio has a large proportion of poor families. This may be attributed to the fact that the road runs through this barrio, and the passing buses and automobiles have killed off too many of the hogs to make hog raising profitable or safe.

Most of the animals used for food are slaughtered in the village. There is practically no trade in cattle or hogs outside of the municipio. There is also relatively little buying and selling of cattle and oxen within the village, since most of them are traditionally purchased in the state of Guerrero where prices are lower. Some men make it a practice to go to Guerrero to buy cattle for resale in Tepoztlán at a nice profit, but this is done on a small scale and only intermittently. Several of the better-to-do farmers became prosperous by doing this during the turbulent years after the Revolution when few dared to leave the village.

It is estimated that a team of oxen work on an average of ninety days a year. Since most families do not own their own oxen, the oxen owners do a good deal of custom work. In 1947 an oxen owner charged 16 pesos per day, that is 4 pesos for the driver and 12 pesos for the team. The income from renting a team of oxen for a ninety-day period would therefore be 1,080 pesos, less about 120 pesos for the cost of feed. When oxen are rented by the season, the charge is generally only 200 pesos, but the renter has the obligation of feeding and caring for the animals and assumes all responsibility in case of accident or death. Plow-oxen are also rented in exchange for corn, generally for six *cargas* of corn, worth about 300 pesos in 1947.

Mules and donkeys are considered to yield an even greater income than plow oxen, for they can be rented for a greater variety of jobs and for longer periods. Mules are used primarily for transporting charcoal, wood, corn, and beans. The rental for two mules was 14 pesos a day in 1947. The income from a team of mules would therefore be close to 500 pesos over a ninety-day period.

Hogs are bought, fattened, and sold by many families, but the profit is kept low because of the local custom of fattening hogs with good corn, which is expensive. A young pig costs about 30 pesos and after a year of fattening can be sold to a butcher for 225 pesos. The cost of food per day runs to about 50 centavos, or 18.2

[2] For documents on this point see *Indios*, Vol. 4, Exp. 398.

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nails and now, not infrequently, on wood or wire clothes hangers purchased in Cuernavaca. Clothes closets are used only in a very few well-to-do homes in the center of the village. Food, except corn and beans, does not present a storage problem, since it is purchased in small quantities for immediate consumption. A few cans, bottles, jars, and baskets usually suffice to take care of current food. But the more modern or acculturated the family, the greater the number of storage facilities.

The family supply of corn presents the most important storage problem. For this purpose separate structures resembling corncribs are built in the family patio. Redfield describes these as follows:

> The storehouse (S. *troje*) is practically always present, and is usually placed immediately in front of the dwelling. It occurs in three forms, all of which are probably of entirely pre-Columbian design. The *ohuatlapil* (N. *ohuatlapilli*) is most common. This is circular, about six feet high and of varying diameter; it is made of vertical cornstalks bound together with rope. It contains maize on the cob (S. *mazorca*). Also made to contain *mazorca* is the *cincolote* (N. *zincolohtli*). This is square, of poles laid horizontally, one pair upon another at right angles to the first until the structure is raised tall enough to contain the maize to be stored. The *cuezcomate* (N. *cuezcomatl*) is a vasiform granary, plastered inside and out with clay. In it is kept shelled corn.[8]

The *cuescomatl* is now a rarity in Tepoztlán, since most of them have been dismantled or allowed to fall in ruin. They are considered very primitive in appearance, and the few families who still own them are not keeping them in good repair and obviously do not take pride in them, although some of them are over a hundred years old. Now shelled corn is stored inside the house in large sacks made of *petates* sewn together, in large baskets, or in burlap bags.

The sewing machine has, as Redfield put it, "become a part of the general Tepoztecan material culture; it is found in all parts of the village and in houses otherwise Indian in character." At present there are 215 sewing machines in Tepoztlán, owned by 25.3 per cent of the families. This is a relatively high proportion in comparison with other rural areas. The average distribution in rural areas throughout Mexico is 15.6 per 100 families; the average for both rural and urban areas in the nation is 22.5 per cent.

Although sewing machines are apt to be found in the poorest homes, as well as in well-to-do homes, there is a high correlation between degree of wealth and ownership of sewing machines. We find such ownership in 76 per cent of Group III, 39 per cent of Group I–C, and 10 per cent of Groups I–A and I–B. It is interesting to note that among Groups I–A and I–B there is a considerable number of families who own no property except a sewing machine. The few wealthy families who do not have their own machines either have little need for one or have all their clothing made by a local seamstress. The 215 machines in Tepoztlán service many more than that number of families, since it is customary to lend or rent machines to relatives and neighbors, and most machines are in continuous use. Indeed, it may be said that one of the secondary but not unimportant effects of the sewing machine

[8] Redfield, *Tepoztlán*, pp. 33–34.